

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-44 (Canceled)

Claim 45 (Previously Presented): An antitumoral composition for the treatment of an HPV related cancerous or precancerous condition, wherein the composition comprises at least one recombinant vector, or a viral particle comprising said recombinant vector, wherein said recombinant vector comprises a sequence encoding at least one immunogenic polypeptide selected from the group consisting of the E6 polypeptide of the HPV-16 papillomavirus and the E7 polypeptide of the HPV-16 papillomavirus, wherein said immunogenic polypeptide is modified by inserting a membrane anchoring sequence and a secretory sequence, so as to have a membrane location at the surface of the cells in which it is expressed, wherein said vector is a non-integrative vector, and wherein said immunogenic polypeptide naturally has a nuclear location and wherein its natural nuclear localization sequence is deleted.

Claim 46 (Canceled).

Claim 47 (Previously Presented): An antitumoral composition for the treatment of an HPV related cancerous or precancerous condition, wherein the

composition comprises at least one recombinant vector, or a viral particle comprising said recombinant vector, wherein said recombinant vector comprises a sequence encoding at least one immunogenic polypeptide, wherein said immunogenic polypeptide is modified by inserting a membrane anchoring sequence and a secretory sequence, so as to have a membrane location at the surface of the cells in which it is expressed, and wherein said vector is a non-integrative vector, and wherein said immunogenic polypeptide is a nononcogenic variant of the E6 polypeptide of a HPV-16 papillomavirus comprising the amino acid sequence shown in SEQ ID NO:1 from position 29 to position 181 or said immunogenic polypeptide is a nononcogenic variant of the E7 polypeptide of a papillomavirus HPV-16 comprising the amino acid sequence shown in SEQ ID NO: 2 from position 26 to 117.

Claim 48 (Canceled).

Claim 49 (Previously Presented): An antitumoral composition for the treatment of an HPV related cancerous or precancerous condition wherein the composition comprises at least one recombinant vector, or a viral particle comprising said recombinant vector, said recombinant vector comprising a sequence encoding:

- (1) an immunogenic polypeptide comprising a sequence shown in SEQ ID NO: 1,
- (2) an immunogenic polypeptide comprising a sequence shown in SEQ ID NO: 2, or

(3) an immunogenic polypeptide comprising a sequence shown in SEQ ID NO: 1 and an immunogenic polypeptide comprising a sequence shown in SEQ ID NO: 2.

Claim 50-56 (Canceled).

Claim 57 (Previously Presented): A method for the treatment of an HPV related cancerous or precancerous condition in a subject, wherein the method comprises administering an effective amount of the antitumoral composition of claim 47 to said subject to treat said cancerous or precancerous condition in said subject.

Claim 58 (Previously Presented): The method of claim 57, wherein said subject is diagnosed as having cancer of the cervix, a low-grade cervical dysplasia or a papillomavirus infection.

Claims 59-60 (Canceled).

Claim 61 (Previously Presented): An antitumoral composition for the treatment of an HPV related cancerous or precancerous condition, wherein the composition comprises at least one recombinant vector or a recombinant viral particle comprising said recombinant vector, wherein said recombinant vector comprises a sequence encoding:

(1) an immunogenic polypeptide comprising a sequence shown in SEQ ID NO: 1 and wherein said recombinant vector further comprises a sequence encoding the L1 protein of a papillomavirus and/or the L2 protein of a papillomavirus,

(2) an immunogenic polypeptide comprising a sequence shown in SEQ ID NO: 2, and wherein said recombinant vector further comprises a sequence encoding the L1 protein of a papillomavirus and/or the L2 protein of a papillomavirus,
or

(3) an immunogenic polypeptide comprising a sequence shown in SEQ ID NO: 1, an immunogenic polypeptide comprising a sequence shown in SEQ ID NO: 2, and wherein said recombinant vector further comprises a sequence encoding the L1 protein of a papillomavirus and/or the L2 protein of a papillomavirus.

Claim 62 (Previously Presented): The antitumoral composition according to claim 49, wherein said recombinant vector comprises, in addition, a sequence encoding at least one-polypeptide which enhances the antitumoral effect of said composition.

Claim 63 (Previously Presented): The antitumoral composition according to claim 49, wherein said recombinant vector is derived from a poxvirus.

Claims 64-65 (Canceled).

Claim 66 (Previously Presented): The antitumoral composition according to claim 63, wherein said poxvirus is MVA.

Claim 67 (Previously Presented): The antitumoral composition according to claim 62, wherein said polypeptide which enhances the antitumoral effect is interleukin-2.

Claim 68 (Previously Presented): A method for the treatment of an HPV related cancerous or precancerous condition in a subject, wherein the method comprises administering an effective amount of the antitumoral composition according to claim 61 to said subject to treat said cancerous or precancerous condition in said subject.

Claim 69 (Currently Amended): The method of claim 68, wherein said subject is diagnosed as having cancer of the cervix, a low grade cervical dysplasia or a papillomavirus infection.

Claims 70-71 (Canceled).

Claim 72 (Currently Amended): An antitumoral composition for the treatment of an HPV related cancerous or precancerous condition, wherein the composition comprises at least one recombinant vector or a recombinant viral particle comprising said recombinant vector, wherein said recombinant vector comprises a sequence encoding at least one immunogenic polypeptide, wherein said recombinant vector is a MVA vector and wherein the sequence encoding at least one ~~immogenic~~ immunogenic polypeptide comprises:

a first sequence encoding a nononcogenic variant of the E6 polypeptide of HPV-16 comprising an amino acid sequence shown in SEQ ID NO:1 from position 29 to position 181, modified by insertion of a secretory and membrane anchoring sequences of the measles F protein, and wherein the first sequence is under the control of a vaccinia virus 7.5K promoter; and,

a second sequence encoding a nononcogenic variant of the E7 polypeptide of HPV-16 comprising an amino acid sequence shown in SEQ ID NO: 2 from position 26 to 117, modified by insertion of a secretory and membrane anchoring sequences of the rabies glycoprotein, and wherein the second sequence is under the control of a vaccinia virus 7.5K promoter; and,

the vector further comprising a third sequence encoding human IL-2, wherein the third sequence is under the control of a H5R promoter.

Claim 73 (Previously Presented): A method for the treatment of an HPV related cancerous or precancerous condition in a subject, wherein the method comprises administering an effective amount of the antitumoral composition of claim 72 to said subject to treat said cancerous or precancerous condition.

Claim 74 (Currently Amended): The method of claim 73, wherein said subject is diagnosed as having cancer of the cervix or a low grade cervical dysplasia.

Claim 75 (Currently Amended): The method of claim 73, wherein said ~~antitumoral~~ antitumoral composition is administered to said subject by an intramuscular or subcutaneous route.

Claim 76 (Currently Amended): The method of claim 57₁ wherein said ~~antitumoral~~ antitumoral composition is administered to said subject by an intramuscular or subcutaneous route.

Claim 77 (Currently Amended): The method of claim 68₁ wherein said ~~antitumoral~~ antitumoral composition is administered to said subject by an intramuscular or subcutaneous route.

Claim 78 (Canceled).

Claim 79 (Previously Presented): A method for the treatment of an HPV-related cancerous or precancerous condition in a subject, wherein the method comprises administering an effective amount of the antitumoral composition of claim 84 to said subject to treat said cancerous or precancerous condition.

Claim 80 (Previously Presented): The method of claim 79₁ wherein said subject is diagnosed as having cancer of the cervix or a low grade cervical dysplasia.

Claim 81 (Currently Amended): The method of claim 79₁ wherein said antitumoral composition is administered to said subject by an intramuscular or subcutaneous route.

Claim 82 (Previously Presented): The antitumoral composition according to claim 47, wherein one or both of said membrane anchoring sequence and said secretory sequence is derived from a protein selected from the group consisting of rabies glycoprotein, HIV virus env glycoprotein, and measles virus F protein.

Claim 83 (Previously Presented): The antitumoral composition according to claim 47, wherein said recombinant vector or said recombinant viral particle further comprises a sequence encoding at least one polypeptide derived from a late polypeptide of a papillomavirus.

Claim 84 (Previously Presented): The antitumoral composition according to claim 47, wherein said recombinant vector or said recombinant viral particle comprises, in addition, the sequence encoding at least one polypeptide which enhances the antitumoral effect of said composition.

Claim 85 (Previously Presented): The antitumoral composition according to claim 84, wherein said polypeptide enhancing the antitumoral effect is an immunostimulator.

Claim 86 (Previously Presented): The antitumoral composition according to claim 85, wherein said immunostimulator is selected from the group consisting of interleukin-2, interleukin-7, interleukin-12 and the coadhesion molecules B7.1 and B7.2.

Claim 87 (Previously Presented): The antitumoral composition according to claim 47, wherein said recombinant vector or said recombinant viral particle is derived from a poxvirus.

Claim 88 (Previously Presented): The antitumoral composition according to claim 87, wherein said poxvirus is MVA.

Claim 89 (Previously Presented): The antitumoral composition according to claim 47, containing a pharmaceutically acceptable carrier allowing its administration by injection into humans or into animals.

Claim 90 (Previously Presented): A method for the treatment of an HPV-related cancerous or precancerous condition in a subject, wherein the method comprises administering an effective amount of the antitumoral composition according to claim 49 to said subject to treat said cancerous or precancerous condition in said subject.

Claim 91 (Currently Amended): The method of claim 90, wherein said subject is diagnosed as having cancer of the cervix, a low grade cervical dysplasia or a papillomavirus infection.

Claim 92 (Previously Presented): The method of claim 90, wherein said antitumoral composition is administered to said subject by an intramuscular or subcutaneous route.

Claim 93 (Previously Presented): The antitumoral composition according to claim 61, wherein said recombinant vector or said recombinant viral particle is derived from a poxvirus.

Claim 94 (Previously Presented): The antitumoral composition according to claim 93, wherein said poxvirus is MVA.